

**WHAT IS CLAIMED IS:**

1 1. A method for temporal drift correction in a real-time electronic communication  
2 comprising:  
3 measuring a size of a receiving data buffer;  
4 comparing the measured size to a predetermined nominal data buffer size;  
5 determining an amount of temporal drift based on the comparison of the measured  
6 data buffer size and the nominal data buffer size;  
7 determining a number of samples to be inserted in or removed from a playback data  
8 block to correct the temporal drift; and  
9 modifying the number of samples in the playback data block to correct the temporal  
10 drift.

1 2. The method of claim 1 wherein the number of samples is modified without  
2 introducing audible artifacts.

1 3. The method of claim 1 wherein measuring the size of the receiving data buffer  
2 comprises measuring an instantaneous size of the receiving data buffer.

1 4. The method of claim 3 wherein measuring the size of the receiving data buffer  
2 comprises:  
3 measuring an instantaneous communication delay associated with the receiving data  
4 buffer two or more times; and  
5 averaging the measurements.

1 5. The method of claim 1 wherein the real-time electronic communication includes an  
2 audio communication.

1 6. The method of claim 5 wherein modifying the number of samples comprises  
2 performing heuristic resampling of the playback data block.

1 7. The method of claim 6 wherein performing heuristic resampling comprises:  
2 analyzing multiple consecutive samples of audio data in the playback data block;  
3 identifying consecutive samples with minimal variation in a parameter of their data;  
4 and  
5 adjusting the number of samples in the identified consecutive samples.

1 8. The method of claim 7 wherein adjusting the number of samples comprises removing  
2 a sample from the identified consecutive samples.

1 9. The method of claim 7 wherein adjusting the number of samples comprises adding a  
2 sample to the identified consecutive samples.

1 10. A computer program, residing on a computer-readable medium, for correcting  
2 temporal drift in a real-time electronic communication, comprising instructions for causing a  
3 computer to:  
4 measure a size of a receiving data buffer;  
5 compare the measured size to predetermined nominal data buffer size;  
6 determine an amount of temporal drift based on the comparison of the measured data  
7 buffer size and the nominal data buffer size;  
8 determine a number of samples to be inserted in or removed from a playback data  
9 block to correct the temporal drift; and  
10 modify the number of samples in the audio playback data block to correct the  
11 temporal drift.

1 11. The computer program of claim 10 wherein the number of samples is modified  
2 without introducing audible artifacts.

1 12. The computer program of claim 10 wherein instructions for causing a computer to  
2 measure the size of the receiving data buffer comprise instructions for causing a computer to  
3 measure an instantaneous size of the receiving data buffer.

1 13. The computer program of claim 12 wherein instructions for causing a computer to  
2 measure the communication delay comprise instructions for causing a computer to:  
3 measure the instantaneous size of the receiving data buffer two or more times; and  
4 average the measurements.

1 14. The computer program of claim 10 wherein the real-time electronic communication  
2 includes an audio communication.

1 15. The computer program of claim 14 wherein instructions for causing a computer to  
2 modify the number of samples comprises instructions for causing a computer to perform  
3 heuristic resampling of the playback data block.

1 16. The computer program of claim 15 wherein instructions for causing a computer to  
2 perform heuristic resampling comprise instructions for causing a computer to:  
3 analyze multiple consecutive samples of audio data in the playback data block;  
4 identify consecutive samples with minimal variation in a parameter of their data;  
5 and adjust the number of samples in the identified consecutive samples.

1 17. A computer system running programmed processes comprising a process  
2 for correcting temporal drift in a real-time electronic communication, the process causing the  
3 computer system to:

4 measure a size of a receiving data buffer;  
5 compare the measured size to predetermined nominal data buffer size;  
6 determine an amount of temporal drift based on the comparison of the measured data  
7 buffer size and the nominal data buffer size;  
8 determine a number of samples to be inserted in or removed from a playback data  
9 block to correct the temporal drift; and  
10 modify the number of samples in the playback data block to correct the temporal drift.

1 18. The computer system of claim 17 wherein the number of samples is modified without  
2 introducing audible artifacts.

1 19. The computer system of claim 17 wherein measuring the size of the receiving data  
2 buffer comprises measuring an instantaneous size of the receiving data buffer.

1 20. The computer system of claim 19 wherein measuring the size of the receiving data  
2 buffer comprises:  
3 measuring the instantaneous communication delay associated with the receiving data  
4 buffer two or more times; and  
5 averaging the measurements.

1 21. The computer system of claim 17 wherein the real-time electronic communication  
2 includes an audio communication.

1 22. The computer system of claim 21 wherein modifying the number of samples  
2 comprises performing heuristic resampling of the audio playback data block.

1 23. The computer system of claim 22 wherein performing heuristic resampling  
2 comprises:  
3 analyzing multiple consecutive samples of audio data in the playback data block;  
4 identifying consecutive samples with minimal variation in a parameter of their data;  
5 and  
6 adjusting the number of samples in the identified consecutive samples.